

species in *Chamaesyce*. Several new combinations are made.—A. H. MOORE and S. MOORE (Jour. Bot. 52:263-265. 1914) have published three new species of Compositae from Peru.—S. MOORE (*ibid.* 89-98. *pl.* 530) has published several new species of the Vernoniae from Africa and includes a new genus (*Muschleria*). The same author (*ibid.* 146-151. *pl.* 530B) has described a number of new flowering plants from South Africa and includes a new genus (*Rhamphogyne*) of the Compositae from Rodriguez Island; and (*ibid.* 333-337) under the title "Alabastra diversa" has published several new species of flowering plants including a new *Acalypha* (*A. Forbesii*) from Peru.—J. M. GREENMAN.

Chemistry of diseased beets.—The composition of sound and of diseased sugar beets has been investigated by BODNÁR⁵ for the purpose of determining if any differences were discoverable which might account for a predisposition to bacterial root-rot on the part of the diseased plants, and thus throw some light on SORAUER'S view that this disease is induced by abnormal metabolism by which the way is paved for inroads by bacteria. In the preparation of a mash from the diseased beets BODNÁR apparently used the whole of each beet without a separation of the sound and the diseased portions, except in a few instances when sound and diseased tissues of the same beet were compared. He found that the diseased beets contained less water and less cane sugar, but more acid and more invert sugar than the sound beets. The invert sugar content of the sound portion of diseased beets was higher than that of normal beets, but not as high as that of the diseased portion of the same beet. Invertase was shown to be present in both the sound and the diseased portions of diseased beets, but absent in sound beets. The ash content of both the sound and the diseased tissue of diseased beets was higher than that of sound beets, and the ash was unusually rich in aluminium. That the conditions found in the diseased beets can be regarded as determining factors predisposing the plants to disease is unlikely, since the conditions were found after the plants had been invaded. The high acidity of the diseased beets, as well as the loss in cane sugar and increase in invert sugar, can be attributed directly to the metabolic activity of the bacteria. Even the increased ash content may indicate merely a proportionate loss of organic matter. It is interesting, however, and worthy of further investigation that in partly diseased beets invertase is present in both the sound and the diseased tissues, and that both are characterized by a higher ash content than normal beets. These conditions seem to indicate an effect of the disease beyond the tissues actually invaded.—H. HASSELBRING.

Alcohol oxidation in seed plants.—Two views have been proposed to explain why alcohol which is produced in plant tissues under conditions of

⁵ BODNÁR, J., Biochemische Untersuchungen der Rübenschwanzfäule der Zuckerrübe. Biochem. Zeitschr. 69:245-256. 1915.